Fatal child maltreatment in England, 2005-9

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Authors' Contributions

The original idea for this paper came from Peter Sidebotham, who carried out the primary analysis and wrote the first and subsequent drafts of the paper.

Sue Bailey and Pippa Belderson carried out the data extraction and coding and contributed to the analysis and to reviews of drafts of the paper.

Marian Brandon had oversight of the main research project and contributed to data analysis and to reviews of drafts of the paper.

Conflicts of Interest

The authors are all involved in ongoing analysis of Serious Case Reviews in England. There are no other conflicts of interest.

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Abstract

Objective: This paper presents comprehensive and up-to-date data covering four years of Serious Case Reviews into fatal child maltreatment in England.

Methods: Information on all notified cases of fatal maltreatment between April 2005 and March 2009 was examined to obtain case characteristics related to a systemic classification of five broad groups of maltreatment deaths (severe physical assaults; covert homicide/infanticide; overt homicide; extreme neglect/deprivational abuse; deaths related to but not directly caused by maltreatment).

Results: A total of 276 cases was recorded giving an incidence of 0.63 cases per 100,000 children (0-17) per year. 246 cases could be classified based on the data available. Of these the commonest specific group was those children who died as a result of severe physical assaults. Apparently deliberate overt and covert homicide was less common, whilst deaths as a direct consequence of neglect were rare. In contrast, some evidence of neglect was found in at least 40% of all cases, though not the direct cause of death.

Conclusions: Class characteristics differ between the different categories of death and may suggest the need for different strategies for prevention.

Key words

Child abuse, neglect, child maltreatment, fatal maltreatment, homicide, infanticide

Background

It has been estimated that at least one to two children die each week in the UK at the hands of their carers (Green, 1998), although there is some evidence that overall numbers and rates of violent child deaths may be falling (Pritchard & Sharples, 2008; Pritchard & Williams, 2009; Sidebotham, Atkins, & Hutton, unpublished). The true incidence of fatal child maltreatment, however, is not known. In part this reflects the difficulties in classifying deaths from maltreatment and the reality that such deaths are not always apparent, and do not fit into any particular pattern.

Previous research has indicated that there is a spectrum of fatal maltreatment (Christoffel & Liu, 1983; Fujiwara, Barber, Schaechter, & Hemenway, 2009; Reder, Duncan, & Gray, 1993). Expanding on this, our own experience suggests that maltreatment-related fatalities can be classified in five broad groups: infanticide and covert homicide; severe physical assaults; extreme neglect/deprivational abuse; deliberate/overt homicide; and deaths related to but not directly caused by maltreatment. It is postulated that these groups differ in relation to the characteristics of the victims and perpetrators, the mode of death and the intentions behind the death (Sidebotham, 2007) (Table 1). In order to test the validity of this classification in understanding maltreatment related deaths, we analysed data from all cases of fatal maltreatment from 2005 - 9 included in two national analyses of Serious Case Reviews (Brandon, Bailey, & Belderson, 2010; Brandon, et al., 2009).

Methods

Every case of fatal child abuse or neglect in England is subject to a multi-agency Serious Case Review (SCR) (Department of Health, Home Office, & Department for Education and Employment, 1999; HM Government, 2006, 2010). The purpose of these reviews is to establish whether there are lessons to be learned about the way in which local professionals and organisations work together to safeguard and promote the welfare of children. Responsibility for Safeguarding Children rests with multi-agency Local Safeguarding Children Boards (LSCB) established in each Local Authority (local

government) area in England and covering populations from around 100,000 to 1,000,000. Each LSCB is required to notify OFSTED (Office for Standards in Education, Children's Services and Skills) of any case which may result in a Serious Case Review. LSCBs notify OFSTED by telephone as soon as they are aware of a case that may lead to a Serious Case Review. Once the review is completed, the complete review is then sent to OFSTED for evaluation.

All Serious Case Reviews relating to fatal incidents arising between 1st April 2005 and 31st March 2009 and notified to OFSTED were eligible for inclusion. Those Serious Case Reviews relating to non-fatal maltreatment were excluded. Anonymised data on each case were made available to the research team. These data included basic descriptive and demographic information on the case and a short free text narrative of the case. The research team did not have access to the full Serious Case Review reports, nor to any of the primary case records.

A classification system was developed by the research team, based on the suggested categories of fatal maltreatment (Table 1). In addition to the original 5 categories, two further specific categories of Sudden Unexpected Death in Infancy (SUDI) and suicide were included as an initial perusal of the data indicated that these were common categories and it was not always clear from the information available whether they were directly or indirectly related to maltreatment.

Table 1 Classification of fatal maltreatment

Category	Inclusion criteria	Exclusion criteria
1. Infanticide and covert homicide	Fatalities, usually of very young infants, many shortly after birth and typically perpetrated by the mother using "less violent" means, or in which the cause of death is not immediately apparent. These differ from the group of severe physical assaults. This category would include deaths as a result of exposure, asphyxiation, drowning, strangulation or poisoning where there is some indication that there was some intent to kill (as distinct from accidental deaths from these causes). Also included deaths following concealment of pregnancy where there was any suspicion that the mother may have killed the child.	Exclude deaths where there are obvious severe physical injuries e.g. non-accidental head injury or multiple injuries (category 2); or evidence of homicide which is apparent from the start, e.g. stabbings, obvious strangulation, multiple killings (category 4). Exclude deaths which are considered to be a result of accidents (category 5).
2. Severe physical assaults	Includes cases of severe physical violence with or without associated neglect. The mode of death in these cases is typically a violent assault, most commonly an inflicted head injury, including shaking and shaking-impact injuries, but also multiple injuries and abdominal injuries. Other deaths may include the use of firearms, beatings, stabbings and strangulation but where there was not an obvious intent to kill.	Exclude deaths where there is some indication that the perpetrator set out to deliberately kill the child (category 4).
3. Extreme neglect / deprivational abuse	Cases where the direct cause of death is extreme neglect or deprivation of the child's needs, e.g. through starvation or exposure, or where there is evidence of deliberate failure to respond to medical needs of the child.	Exclude deaths in which the neglect appears be a reflection of parental incompetence, related to learning difficulties, physical or mental ill-health, or other environmental circumstances (treat as deaths related to but not directly caused by maltreatment - category 5). Exclude abandonment of very young infants (category 1). Exclude accidental deaths related to poor parental supervision (category 5). Exclude cases where neglect may have contributed to the death, but there is no evidence of persistent neglect in other areas (category 5).
4. Deliberate / overt homicide	This group overlaps with the first category of infanticide/covert homicide, in that there would appear to be an intent to kill the child; but differs from that and other groups in the age profile, in the victim and perpetrator characteristics	Exclude severe injuries where there is no evidence of intent to kill (category 2); cases where the homicide is not immediately apparent

	and in the typical mode of death. In these deaths, the fact of homicide is likely to be immediately apparent. Include deaths caused by stabbings and firearms; include severe beatings where there appears to be an intent to kill. Include homicides with associated sexual assaults; include cases of killings of multiple family members or of multiple killings with subsequent suicide of the perpetrator ("extended suicides"). This may include deaths from house fires with evidence of arson with intent to kill.	(category 1).
5. Deaths related to but not directly caused by maltreatment	Deaths which are felt to be related to maltreatment, but in which the maltreatment cannot be considered a direct cause of death. Include sudden unexpected deaths in infancy (5a) with clear concerns around parental care, but not sufficient to label as extreme or persistent neglect (category 3). Include fatal accidents where there may be issues of parental supervision and care, including accidental ingestion of drugs or other household substances; drownings; falls; electrocution; gunshot wounds; and fires. Includes those children dying of natural causes whose parents may not have sought medical intervention early enough. Include deaths of older children with previous maltreatment, but where the maltreatment did not directly lead to the death, e.g. death from an overwhelming chest infection in a child severely disabled by a non-accidental head injury; suicide (5b) or risk taking behaviours including substance abuse in young people with a past history of abuse.	Deaths covered by any of the preceding categories.
5a. Sudden unexpected death in infancy (SUDI)	Include all SUDI under the age of 1. May incorporate some cases of covert homicide (category 1), or any of the other categories. Include SUDI cases where there was some evidence of poor parenting, abuse or neglect, but the death was not a direct consequence of injury or severe neglect.	Deaths with features suggestive of any other categories 1-4.
5b. Suicide	Include all suicides.	Exclude cases where it is not clear whether or not the death was a suicide.
6. Other death, category not clear	Include Serious Case Reviews where a child has died, but there is no indication from the case summary as to which category it should fit into.	Deaths covered by any of the preceding categories.

Data drawn from quantitative fields on the database were compared with the narrative text and updated where possible to ensure the greatest degree of accuracy. The quality of the narrative text varied considerably and fewer than half contained a clear description of the case, so the proportions given are descriptive only and in many cases are likely to be underestimates. The incompleteness of the data, the subjective nature of case allocation and the lack of any appropriate control population meant that it was inappropriate to carry out any detailed statistical analysis. After checking the accuracy of the database data, each case was reviewed independently by two researchers using the classification system. Where there was a discrepancy between the two coders, a third researcher reviewed the data and the team jointly discussed the case before assigning a consensus category.

The data used in this study were fully anonymised before being given to the research team. The study was approved by the University of East Anglia (school of social work and psychology) Research Ethics Committee. The research was carried out carried out in accordance with *The Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments involving humans.*

Results

There were a total of 457 incidents notified to OFSTED which progressed to a Serious Case Review during 2005-9. Of these 276 related to fatalities and 181 to non-fatal incidents. Of the 276 deaths, it was possible to assign 246 (89%) to one of the above categories 1-5 (Table 2). In 30 (11%) cases the category was not clear. 59% of deaths were in males. The median age of the children was 16 months at the time of the incident, with a range of 0 – 215 months. 27% of children were of non-white ethnicity. 29.5% of children were known to child protection services (as evidenced by either the index child or a sibling being subject to a child protection plan) prior to the incident. Cases were

spread throughout the four year period, with no obvious trends in notification (Figure 1). Primary case characteristics as listed on the notification database are provided for each category in Table 2, and further case characteristics, extrapolated from additional case information in Table 3.

Figure 1 Notification of fatal cases by quarter

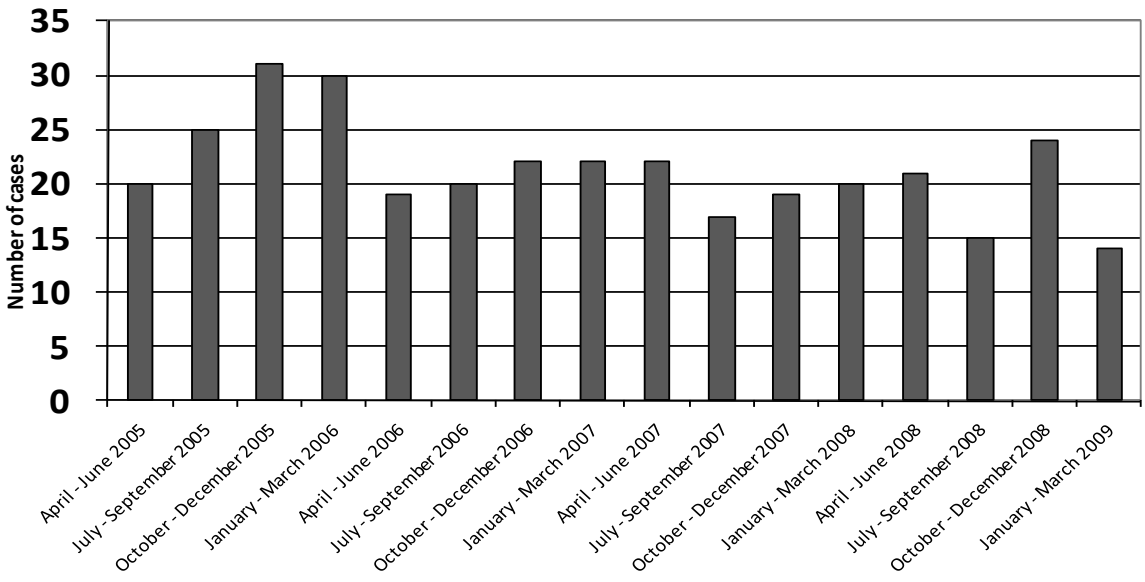


Table 2 Death / Incident categorisation and characteristics

	Frequency	Proportion of deaths in this category	Gender (% male)	Median (range) age in months	Ethnicity (% non-white) N=245	% Known to child protection services[a] N=268
Infanticide / covert homicide	13	4.7%	100.0%	1.0 (0-39)	58.3%	16.7%
Severe physical assault	60	21.7%	60.0%	4.0 (0-51)	29.1%	11.9%
Extreme neglect	4	1.4%	25.0%	23.5 (3-84)	33.3%	0.0%
Deliberate / overt homicide	31	11.2%	67.7%	70.0 (5-213)	36.7%	23.3%
Death related to but not directly caused by maltreatment	138	50.0%	55.1%	34.0 (0-215)	16.9%	38.8%
SUDI	48	17.4%	60.4%	2.0 (0-15)	12.5%	43.5%
Suicide	41	14.9%	48.8%	202.0 (103-215)	15.4%	36.6%
Other death related to but not directly caused by maltreatment	49	17.8%	55.1%	64.0 (0-211)	22.2%	36.2%
Death, category not clear	30	10.9%	53.3%	8.5 (0-201)	44.8%	37.9%
Total Deaths	**276**	**100%**	**59.1%**	**16.0 (0-215)**	**27.3%**	**29.5%**

a. those cases where the index child or a sibling was, at the time of the incident, or had previously been, subject to a child protection plan.

Table 3 Further case characteristics characteristics – information from the notification database and case summaries[a]

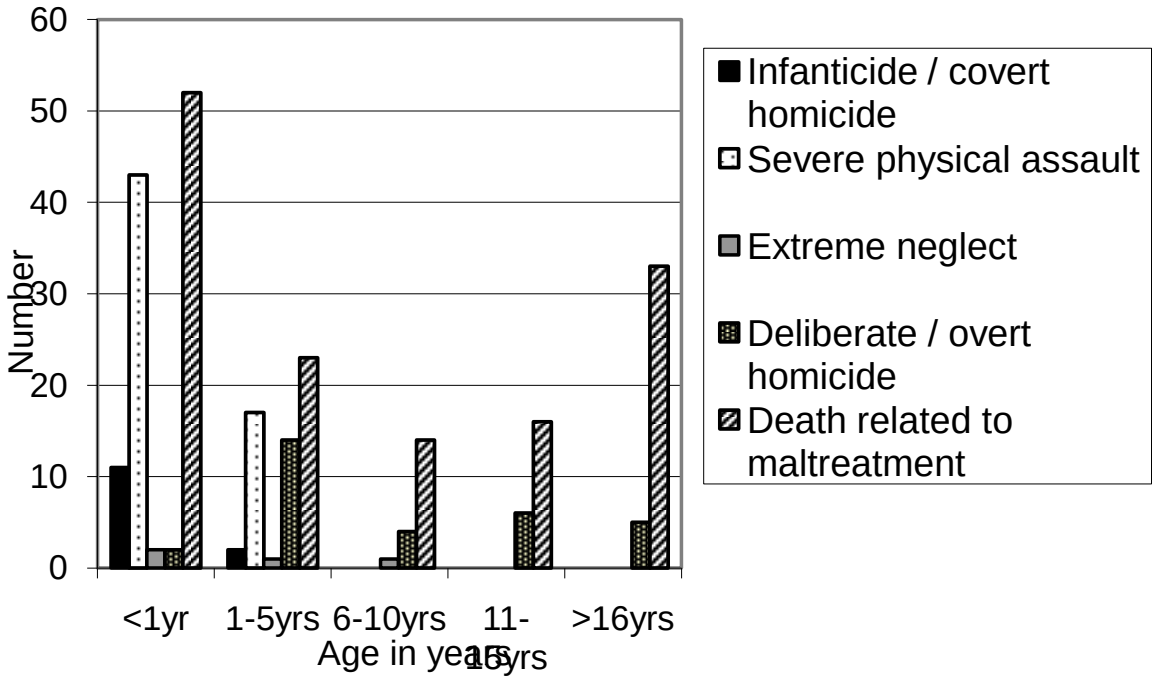
	Parental mental health issues	Parental substance misuse	Parental alcohol misuse	Domestic violence	Evidence of previous physical abuse	Evidence of previous neglect
Infanticide / covert homicide	1 (8%)	1 (8%)	0 (0%)	0 (0%)	9 (69%)	6 (46%)
Severe physical assault	8 (13%)	6 (10%)	6 (10%)	12 (20%)	41 (68%)	12 (20%)
Extreme neglect	1 (25%)	0 (0%)	0 (0%)	1 (25%)	0 (0%)	4 (100%)
Deliberate / overt homicide	16 (52%)	4 (13%)	7 (23%)	12 (39%)	16 (52%)	7 (23%)
Death related to but not directly caused by maltreatment	33 (24%)	38 (28%)	37 (27%)	39 (28%)	24 (17%)	66 (48%)
SUDI	13 (27%)	23 (48%)	25 (52%)	16 (33%)	10 (21%)	23 (48%)
Suicide	11 (27%)	2 (5%)	3 (7%)	9 (22%)	8 (20%)	9 (22%)
Other death related to but not directly caused by maltreatment	9 (18%)	13 (27%)	9 (18%)	14 (29%)	6 (12%)	34 (69%)
Death, category not clear	6 (20%)	4 (13%)	1 (3%)	12 (40%)	8 (27%)	14 (47%)
Total Deaths	**65 (24%)**	**53 (19%)**	**51 (18%)**	**76 (28%)**	**98 (36%)**	**109 (40%)**

a. Cases are recorded as having a particular characteristic only if that characteristic was specifically noted in the database or case summary. The absence of any documented characteristic could imply that the feature was not present, or simply that it had not been recorded, thus the frequencies listed here are descriptive only and are likely to represent a minimum estimate.

The age profile of the different categories is shown in Figure 2. Severe physical assaults were concentrated in infants and those under 5, as were cases of severe neglect and covert homicides. In contrast, more overt homicides occurred throughout the age spectrum. Deaths related to but not

directly caused by maltreatment occur throughout the age spectrum, with two peaks corresponding to the SUDI cases in infants and suicides in teenagers.

Figure 2 Age profile of different categories of fatal maltreatment



Severe physical assaults made up the largest specific category, accounting for 24% of deaths for which a category could be assigned. The majority of these physical assaults (43, 72%) involved non-accidental head injuries, including both skull fractures and intra-cranial haemorrhages Table 4. Many of these had multiple associated injuries. Eight children died with non-specified multiple injuries, one of a spinal injury and four of fatal abdominal injuries. In 48 cases, information was provided about the suspected perpetrator. In 27 of these (56%) this was the father or a father figure, in 2 (4%) the mother, in 7 (15%) another adult, including 4 specifically mentioned as baby-sitters, and in 12 (25%) both parents were implicated.

Table 4: Further case characteristics – direct maltreatment deaths

Primary Injury/ cause of death[a]	Associated Injuries[b]	Median Age in months (range)	Primary Suspect[c]
Severe Physical Assaults			
Head injury (43) Of which Skull fractures (8)	Other fractures (9) Of which rib fractures (4) Abdominal injuries (2) Bruising (5) Non-specified multiple injuries (4) Sexual Assault (1)	3.5 (0-37)	Father (14) Mother's partner (5) Both parents (6) Other family member (1) Other (3) Not known (14)
Abdominal injuries (4) Of which liver (1) Stomach (1) Mesenteric (1)	Fractures (1) Bruising (2) Sexual assault (1)	12.5 (9-18)	Father (1) Mother's partner (1) Both parents (1) Not known (1)
Spinal injury (1)	Multiple fractures, bruising	16	Father
Non-specified multiple injuries (8)	Fractures (2) Bruising (1)	17 (2-33)	Father (1) Mother (1) Both parents (1) Other (1) Not known (4)
Overt Homicide			
Stabbing (9)	Multiple killings (2) Attempted perpetrator suicide (1) Pet killed (1) Sexual assault (1)	188 (7-213)	Mother (3) Other (6)
Asphyxia (6)	Multiple injuries (1) Sexual assault (1) Multiple killings (2) Perpetrator suicide (1) Attempted perpetrator suicide (1)	31.5 (18-68)	Father (2) Mother (3) Other family member (1)
Poisoning (3)	CO poisoning (2) Perpetrator suicide (2) Attempted perpetrator suicide (1)	63 (62-88)	Father (1) Mother (2)
Burns (2)	Multiple killings (2) Perpetrator suicide (1)	(94-175)	Father (1) Other family member (1)
Drowning (2)	Perpetrator suicide (1)	(26-199)	Father (1) Other (1)
Fall/jump (1)	Perpetrator suicide	154	Mother
Shooting (1)		198	Other
Blunt object (1)		140	Other
Not specified (7)	Multiple killing (4) Perpetrator suicide (4) Arson (1)	17 (4-82)	Father (2) Mother (3) Not known (2)

Covert Homicide			
Concealed birth (3)		0	Mother (2) Both parents (1)
Asphyxia (6)	Fractures (3) Bruising (1) Sexual assault (1)	1 (0-10)	Father (1) Mother (3) Both parents (2)
Poisoning (2)		(25-39)	Mother (2)
Abandoned (2)		(3-6)	Mother (1) Mother's partner (1)
Extreme neglect			
Starvation (4)	Multiple organ failure (1) Dehydration (1)	23.5 (3-84)	Both parents (1) Not known (3)

a. Primary injury / cause of death as documented in the case details
b. Those cases where additional injuries were specifically listed; there may be other cases with associated injuries that were not mentioned in the case details.
c. Primary suspect/alleged perpetrator, where indicated

In 19 (61%) of the "overt homicide" cases more than one family member had died, including 12 (39%) where the suspected perpetrator had apparently committed or attempted suicide. The majority (7) of these "extended suicides" involved the mother. A variety of means was used including suffocation, stabbings and carbon monoxide poisoning (Table 4). Three cases appeared to be associated with arson. In one case the family pet had also been killed. Four older teenagers had been killed by fellow pupils in fights or apparent gang-related incidents. There were 2 cases of apparent homicide following a sexual assault, one involving a family member and the other a stranger.

There were only 4 cases where the death was deemed a direct consequence of extreme neglect. All cases showed evidence of severe malnutrition, with one case presenting as a SUDI and the others developing multi-organ failure.

Of the 13 cases of infanticide/covert homicide, two were babies who were abandoned or disappeared. There were two cases (both over a year of age) of possible poisoning. The commonest mode of death was asphyxia or suffocation in 6 cases, in three of whom other signs of injury were found. The mother was the primary suspect in 8 cases and the father or father figure in 2. Three of the deaths followed concealed pregnancies.

Forty eight of the infant deaths presented as sudden unexpected deaths in infancy with no clear indication of maltreatment as a direct cause of death; in all of these cases it is presumed that there must have been some concerns to trigger a Serious Case Review, although the nature of these concerns was not always clear from the notification report. Twenty eight of these infants were co-sleeping with an adult or sibling at the time of the death, many with additional recognised risk factors including parental alcohol or drug use, overheating, or sofa-sleeping.

There were 41 apparent suicides in this cohort, with ages ranging from 8 to 17. Of those for whom information was available, 26 had died by hanging, 4 following overdoses, 1 by a stab wound and 1 by jumping from a height.

Of the remaining 49 deaths that appeared to be related to but not directly caused by maltreatment, at least 34 (69%) were likely to be related to parental neglect, including 11 children who died in house fires, 3 children who drowned and 5 who died through other accidents in which there was evidence of poor parental supervision. A number of children died of natural causes with some indication that the parents had failed to respond to their illness, including five children with recognised disability. Four teenagers died following drug or alcohol use.

Discussion

This study, drawing on all notified Serious Case Reviews in England over a 4 year period, is the most comprehensive case series of fatal maltreatment in this country. A total of 276 cases was recorded, or an average of 69 per year (176 or 44 per year aged 0-4). In 108 cases, the death was felt to be directly caused by physical abuse or neglect. In a further 138, maltreatment was considered a factor in the death, though not the direct cause of death. In 30 the nature of the death was not clear. The average estimated resident population of England, aged 0-17 between 2005 and 2009 was 11,006,460 (0-4 years estimated resident population = 3,042,800) (Office for National Statistics, 2010). Taking this as a baseline, the annual incidence of fatal maltreatment is 0.63 cases per 100,000 children (0-17 years)

per year (1.44 per 100,000 per year aged 0-4 years). Excluding those deaths related to but not directly caused by maltreatment, the average is 34.5 cases (0-17 years) per year (0.31 per 100,000 per year) or 20.5 cases (0-4 years) per year (0.67 per 100,000 per year). These figures are considerably lower than those reported for 0-4 year olds in the United States (2.5 – 3.0 per 100,000 per year) (Bennett, et al., 2006) and slightly lower than the 1-2 cases per week previously estimated by Green (Green, 1998), but still equates to around one child per week dying in England as a consequence of child abuse or neglect.

As with most studies, the likelihood of some under-ascertainment must be acknowledged (Brookman & Nolan, 2006; Crume, DiGuiseppi, Byers, Sirotnak, & Garrett, 2002; Palusci, Wirtz, & Covington, 2010). There will inevitably be some covert homicides that remain as such and cannot, in our current state of knowledge be uncovered, although the numbers are likely to be small. There will also be some deaths where maltreatment may have been present, but the child and family were not known to child protection services either before or after the death and there was nothing in the nature of the death to indicate that maltreatment played a part. This case series, however, will not include all violent deaths of children and young people. In this country, child maltreatment services encompass all children aged 0-17 years. They are, however, commonly interpreted primarily in relation to intra-familial abuse or neglect. Whilst the series includes a small number of young people killed by peers, for example following gang violence, it will not include all of these.

Overall there was a slight preponderance of males (59.1% compared to 51.3%, mid-year population estimate 0-17 year olds (Office for National Statistics, 2010)) and an excess of children from Black and Ethnic Minority groups (27.3% compared to 13.1% for all dependent children in the 2001 national census (Office for National Statistics, 2005)). The slight male excess has been shown in other studies of fatal maltreatment (Fujiwara, et al., 2009; Klevens & Leeb, 2010). Ethnic differences vary from country to country, and the dichotomised grouping we used may mask subtle differences within and between particular ethnic groups. The numbers in our study were, however, too small to allow for a meaningful breakdown by individual ethnic groups.

The hypothesis that maltreatment deaths represent a spectrum, rather than a single homogeneous group, is supported by our research and concurs with much of the published research into fatal maltreatment (Fujiwara, et al., 2009; Guileyardo, Prahlow, & Barnard, 1999). The classification system suggested was found to be workable in practice, and to provide some insight into different types of fatal maltreatment. It does, however, have its limitations, and others may be able to build on this to further refine or redefine different groups of such deaths. As a research team we were unable to assign a category to 30 (11%) cases due to insufficient information. In many cases information was missing and so the associations highlighted in the results are likely to be underestimates. The second major limitation was the subjective nature of the allocation of categories. The research team made judgments often on very limited information, with no or limited insight into potential motives. Information on court rulings was rarely included in the overview reports and even with such information it will often be difficult to determine intent. This would have a major impact on the distinction between covert or overt homicides and those deaths classified as due to severe physical assault.

These results emphasise the importance of severe physical assault as the commonest form of fatal maltreatment, with non-accidental head injuries being the most common mode of death in this group, a finding in keeping with other published studies (Fujiwara, et al., 2009; Lyman, et al., 2003; Nielssen, Large, Westmore, & Lackersteen, 2009). Where we were able to ascertain from the data, the father or father figure was most commonly implicated in these assaults, but a surprising number involved both parents, or other adults, including baby sitters. Whilst our original hypothesis was that these deaths primarily represented impulsive outbursts without premeditation, a large proportion had evidence of prior abuse or neglect, although only a minority had previously been the subject of a child protection plan. Domestic violence was mentioned in 20% of these cases, although parental mental health difficulties, drug or alcohol misuse were mentioned only in a minority, suggesting that it may be difficult to predict which families may be most at risk. These results, however, need to be interpreted with caution as there may have been significant under-reporting of these features. This group of deaths may be that most amenable to prevention, but this would be dependent on gaining a

far better understanding of the parental and family characteristics, and potentially on interventions geared more towards fathers and father figures rather than those aimed primarily at mothers.

Those cases where there appeared to be some intent to kill the child occur throughout the age spectrum, though again with a predominance in the early years, particularly in relation to covert homicide. A high proportion of these cases had evidence of prior abuse or neglect, although again the majority did not have prior child protection plans. Parental mental health problems, drug and alcohol abuse and domestic violence featured highly in the group of overt homicides, though surprisingly were less common amongst the covert group. Previous studies have found high proportions of parental mental illness within these apparently more deliberate homicides (Bourget & Gagne, 2002, 2005; Fujiwara, et al., 2009; Nielssen, et al., 2009). A high proportion of the overt homicides involved multiple homicides and extended suicide, a characteristic also found in Bourget and Gagne's studies of filicide in Quebec (Bourget & Gagne, 2002, 2005). The majority of these extended suicides involved the mother, and perhaps there is some overlap here with the group of covert homicides, which too tended to be perpetrated by mothers.

Extreme neglect would appear to be rare as a direct cause of death, although in this instance the proposed classification may be misleading, as this category includes only those deaths in which neglect was deemed to be the primary cause of death. Other studies have also found that deaths primarily due to extreme neglect are rare, and typically result from a combination of malnutrition and/or dehydration leading to multi-organ failure (Kellogg & Lukefahr, 2005; Knight & Collins, 2005). However, it is also clear that this represents only a small proportion of all deaths related to neglect (Berkowitz, 2001; Palusci, et al., 2010). Overall parental neglect was considered to be a contributory factor in at least 40% of the deaths, although data were often missing and the overall figure may be even higher. Often this was a background issue, but emphasises the risks to the wider group of children who may be suffering ongoing parental neglect and may never come to the notice of child protection professionals. Poor parental supervision, failure to access preventive or curative health care, or refusal to follow advice on safe parenting may all put a child at risk (Berkowitz, 2001).

It is certainly possible that parental neglect could play a part in other accidental and natural causes of childhood death that were not recorded in this dataset.

Particularly significant in this context are the sudden unexpected deaths in infancy (SUDI). There are currently over 200 SUDI per year in England and Wales. Only a minority of these were reported to OFSTED and thus included in this case series. A high proportion in this series were known to child protection services, and others had evidence, in the review, of previous abuse or neglect. Parental mental ill-health, substance and alcohol misuse and domestic violence all featured highly. It is important, however, not to over-interpret these findings as it may have been those factors that led the local teams to institute a Serious Case Review in the first place, and this certainly cannot be extrapolated to the wider group of all SUDI. A recent German study found that 5% of all sudden unexpected deaths in infancy turned out to be unnatural (either through accident or homicide) (Bajanowski, et al., 2005). Many of the recognised risk factors for sudden infant death syndrome (SIDS) (Blair, Sidebotham, Berry, Evans, & Fleming, 2006) overlap with those factors recognised in child maltreatment (Belsky, 1980). Thus, the fact that an infant of a young, single mother, living in a deprived neighbourhood and with evidence of drug or alcohol abuse dies unexpectedly does not of itself imply that the death is suspicious. Similarly, many infants dying suddenly and unexpectedly will have had previous involvement of child protection services. Reviewing one case series of SUDI, Krous and colleagues concluded that a family's referral to CPS prior to their sudden death of their infant does not increase the likelihood that it was caused by inflicted injuries, and prior referral should not preclude a diagnosis of SIDS (Krous, et al., 2006).

The 41 apparent suicides in this series highlight the fact that child maltreatment can have long-term and fatal consequences, even when it is not perceived to be immediately life threatening as in the case of emotional and sexual abuse. There are approximately 80 child and adolescent (up to age 19) suicides per year in England and Wales (Office for National Statistics, 2009). This suggests that prior abuse or neglect may be a contributory factor in at least 1 in 8 child and adolescent suicides. Numerous previous studies have previously demonstrated a strong association between child

maltreatment (particularly sexual abuse) and adolescent suicide (King & Merchant, 2008), however, the relationship is complex and there may be many other mediating and ameliorating factors at play.

Conclusions

This research, using the most complete national data on fatal maltreatment in England, has built on previous work to present a descriptive profile of a spectrum of maltreatment-related deaths. Our results again highlight the risks to infants and young children, but also emphasise that there are ongoing risks to older children and adolescents. In this country, children from black and ethnic minority families seem to be disproportionately at risk, particularly within some sub-categories. Whilst, overall, less than 1 in 3 cases had previously been subject to a child protection plan, the number in whom there was evidence of previous abuse or neglect was much higher, suggesting that there is further scope both for identification and protection of those most at risk.

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